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      KIPRIYANOV, SERGEY
      MOLDENHAUER, GERHARD
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<151> 1998-05-22
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get gge ttg etg etg gea get eag eeg gee atg geg eag gtg eag
                                                                      102
Ala Gly Leu Leu Leu Ala Ala Gln Pro Ala Mèt Ala Gln Val Gln
ctg cag cag tot ggg got gaa otg goa aga oot ggg gòc toa gtg aag
                                                                      150
Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val Lys
atg tcc tgc aag gct tct ggc tac acc ttt act agg tac acg\atg cac
                                                                      198
Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met His
             45
                                 50
tgg gta aaa cag agg cct gga cag ggt ctg gaa tgg att gga tac àtt
                                                                      246
Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Tyr Ile
         60
                                                  70
aat cct agc cgt ggt tat act aat tac aat cag aag ttc aag gac aag
                                                                      294
Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys Asp Lys
     75
                         80
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	•												
_	-	\ _		_		_		_		_	caa Gln	_	342
											aga Arg 120		390
	-	_	1	_							act Thr		438
											gaa Glu		486
											atc Ile		534
											agc Ser		582
											tcc Ser 200		630
											cct Pro		678
											atc Ile		726
											tgg Trp		774
											aac Asn		822
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_				cac His			taat	ctag	ja	\			909
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<212> PRT

<213> Homo sapiens

NE)

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Tyr Thr Phe Thr Arg Tyr Thr Met His Trp Val Lys Gln Arg Pro Gly
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Gln Gly Leu GNu Trp Ile Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr
                                        75
Asn Tyr Asn Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys
                                    90
Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp
                                105
Ser Ala Val Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp His Tyr Ser Leu
Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Ala Lys Thr
                        13/5
                                            140
Thr Pro Lys Leu Glu Glu Gly Glu Phe Ser Glu Ala Arg Val Asp Ile
Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly Glu Lys
                                    170
                165
Val Thr Met Thr Cys Ser Ala Ser \Ser Ser Val Ser Tyr Met Asn Trp
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                                                    190
Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr
                            200
Ser Lys Leu Ala Ser Gly Val Pro Ala Ris Phe Arg Gly Ser Gly Ser
                        215
Gly Thr Ser Tyr Ser Leu Thr Ile Ser Gly\Met Glu Ala Glu Asp Ala
                    230
Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Phe Thr Phe Gly
                245
                                    250
Ser Gly Thr Lys Leu Glu Ile Asn Arg Ala Asp Thr Ala Pro Thr Gly
                                265
Ser Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Ash Ser His His
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His His His
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                                                                      102
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Ala Gly Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Gln Val Gln

54

ctg cag cag tot ggg got gaa otg goa aga oot ggg goo toa gtg aag 150 Lew Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val Lys atg tck tgc aag get tet ggc tac ace ttt act agg tac acg atg cac 198 Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met His tgg gta aaa àag agg cct gga cag ggt ctg gaa tgg att gga tac att 246 Trp Val Lys Gl\(\hat{n}\) Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Tyr Ile 60 aat cct agc cgt ggt tat act aat tac aat cag aag ttc aag gac aag 294 Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys Asp Lys 75 gac aag gcc aca ttg act aca gac aaa tcc tcc agc aca gcc tac atg 342 Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr Met 90 95 caa ctg agc agc ctg aca tct gag gac tct gca gtc tat tac tgt gca 390 Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala 110 aga tat tat gat gat cat tac agc c\t gac tac tgg ggc caa ggc acc 438 Arg Tyr Tyr Asp Asp His Tyr Ser Let Asp Tyr Trp Gly Gln Gly Thr act etc aca gte tec tea gee aaa aca aca ecc aag ett gge ggt gat 486 Thr Leu Thr Val Ser Ser Ala Lys Thr Thk Pro Lys Leu Gly Gly Asp 140 145 150 ate ttg etc ace caa act eca get tet ttg gat gtg tet eta ggg cag 534 Ile Leu Leu Thr Gln Thr Pro Ala Ser Leu Alà Val Ser Leu Gly Gln 155 160 165 agg gcc acc atc tcc tgc aag gcc agc caa agt gt gat tat gat ggt 582 Arg Ala Thr Ile Ser Cys Lys Ala Ser Gln Ser Val Asp Tyr Asp Gly 170 185 gat agt tat ttg aac tgg tac caa cag att cca gga càg cca ccc aaa 630 Asp Ser Tyr Leu Asn Trp Tyr Gln Gln Ile Pro Gly Gln Pro Pro Lys 190 ctc ctc atc tat gat gca tcc aat cta gtt tct ggg atc cca ccc agg 678 Leu Leu Ile Tyr Asp Ala Ser Asn Leu Val Ser Gly Ile Pro\Pro Arg 205 210 ttt agt ggc agt ggg tct ggg aca gac ttc acc ctc aac atc cat\cct 726 Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile His Pro 225 gtg gag aag gtg gat gct gca acc tat cac tgt cag caa agt act gag 774 Val Glu Lys Val Asp Ala Ala Thr Tyr His Cys Gln Gln Ser Thr Glu 235 240

No.

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gat dcg tgg acg ttc ggt gga ggc acc aag ctg gaa atc aaa cgg gct
                                                                     822
Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala
250
                    255
gat get gkg gee get gga tee gaa eaa aag etg ate tea gaa gaa gae
                                                                     870
Asp Ala Alà Ala Ala Gly Ser Glu Gln Lys Leu Ile Ser Glu Glu Asp
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Leu Asn Ser His His His His His
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Ala Gln Pro Ala Met Ala Glh Val Gln Leu Gln Gln Ser Gly Ala Glu
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Leu Ala Arg Pro Gly Ala Ser Val Lys Met Ser Cys Lys Ala Ser Gly
Tyr Thr Phe Thr Arg Tyr Thr Met His Trp Val Lys Gln Arg Pro Gly
                        55
Gln Gly Leu Glu Trp Ile Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr
Asn Tyr Asn Gln Lys Phe Lys Asp Lys Asp Lys Ala Thr Leu Thr Thr
Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser
                                105
Glu Asp Ser Ala Val Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp His Tyr
                            120
Ser Leu Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Ala
                        135
                                            140
Lys Thr Thr Pro Lys Leu Gly Gly Asp Ile Leu Deu Thr Gln Thr Pro
                    150
                                        155
Ala Ser Leu Ala Val Ser Leu Gly Gln Arg Ala Thr\Ile Ser Cys Lys
                165
                                    170
Ala Ser Gln Ser Val Asp Tyr Asp Gly Asp Ser Tyr Lèu Asn Trp Tyr
Gln Gln Ile Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr Asp Ala Ser
                            200
Asn Leu Val Ser Gly Ile Pro Pro Arg Phe Ser Gly Ser Gly Ser Gly
                        215
                                            220
Thr Asp Phe Thr Leu Asn Ile His Pro Val Glu Lys Val Asp Ala Ala
                    230
                                        235
Thr Tyr His Cys Gln Gln Ser Thr Glu Asp Pro Trp Thr Phe Gly\Gly
                                    250
Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Ala Gly Sèr
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Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn Ser His His His His'
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NET

DIS

His His

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                              Met Lys Tyr Leu Leu Pro Thr Ala Ala
gct ggc ttg ctg ctg/gca gct cag ccg gcc atg gcg cag gtg cag
                                                                       102
Ala Gly Leu Leu Leu Leu Ala Gln Pro Ala Met Ala Gln Val Gln
 10
                     15
ctg cag cag tot ggg got gag\ctg gtg agg cot ggg too toa gtg aag
                                                                       150
Leu Gln Gln Ser Gly Ala Glù Leu Val Arg Pro Gly Ser Ser Val Lys
                 30
                                      35
att tcc tgc aag gct tct ggc tat gca ttc agt agc tac tgg atg aac
                                                                       198
Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Tyr Trp Met Asn
                                 · 5/0
tgg gtg aag cag agg cct gga cag ggt \chitte t gag tgg att gga cag att
                                                                       246
Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Gln Ile
         60
                              65
tgg cct gga gat ggt gat act aac tac aat gga aag ttc aag ggt aaa
                                                                       294
Trp Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe Lys Gly Lys
                         80
                                              85
gec act etg act gea gac gaa tee tee age aca gee tae atg caa ete
                                                                       342
Ala Thr Leu Thr Ala Asp Glu Ser Ser Ser Thr Ala Tyr Met Gln Leu
 90
                     95
                                         100
                                                              105
age age eta gea tet gag gae tet geg gte tat tte tgt gea aga egg
                                                                       390
Ser Ser Leu Ala Ser Glu Asp Ser Ala Val Tyr Phe Cxs Ala Arg Arg
                110
gag act acg acg gta ggc cgt tat tac tat gct atg gac tac tgg ggt
                                                                       438
Glu Thr Thr Thr Val Gly Arg Tyr Tyr Ala Met Asp Tŷr Trp Gly
            125
                                 130
caa gga acc tca gtc acc gtc tcc tca gcc aaa aca aca ccc aag ctt
                                                                       486
Gln Gly Thr Ser Val Thr Val Ser Ser Ala Lys Thr Thr Pro Lys Leu
                             145
ggc ggt gat atc gtg ctc act cag tct cca gca atc atg tct gca tat
                                                                       534
Gly Gly Asp Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser
                        160
cca ggg gag aag gtc acc atg acc tgc agt gcc agc tca agt gta agt
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Pro Gly Glu 170	Lys Val	Thr Met	Thr	Cys	Ser	Ala 180	Ser	Ser	Ser	Val	Ser 185	
tac atg aac Tyr Met Asn		Gln Gln										630
att tat gad Ile Tyr Asp												678
ggc agt ggg Gly Ser Gly 220	Ser Gly											726
gct gaa gat Ala Glu Asp 235			Tyr									774
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gca cca act Ala Pro Thr												870
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Leu Val Arg 35	Pro Gly	Ser Ser	Val 40	Lys	Ile	Ser	Cys	Lys 45	Ala	Ser	Gly	
Tyr Ala Phe	Ser Ser	Tyr Trp 55	Met	Asn	Trp	Val	Lys 60	Glh	Arg	Pro	Gly	
Gln Gly Leu	Glu Trp	Ile Gly	Gln	Ile	Trp			Asp	Gly	Asp		
65 Asn Tyr Asn	Gly Lys	70 Phe Lys	Gly	Lys	Ala	75 Thr	Leu	Thr	Ala	Asp	80 Glu	
Ser Ser Ser	85 Thr Ala	Tyr Met	Gln	Leu	90 Ser	Ser	Leu	Ala	Ser	95 Glu	Asp	
	100	_		105					110		_	
Ser Ala Val 115	-	cys Ala	Arg 120	Arg	Glu	Inr	Thr	Thr 125	val	GΤĂ	Arg \	
Tyr Tyr Tyr 130	Ala Met	Asp Tyr 135	_	Gly	Gln	Gly	Thr 140	Ser	Val	Thr	Ϋal	
Ser Ser Ala	T 572			Leu	Gl _W	Glv		Tle	Val	Len	Thr	

D13

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Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln
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Lys Ser Gl X Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Leu
        195
                             200
Ala Ser Gly Val Pro Ala His Phe Arg Gly Ser Gly Ser Gly Thr Ser
                        215
Tyr Ser Leu Thr Ile Ser Gly Met Glu Ala Glu Asp Ala Ala Thr Tyr
                    230
                                         235
Tyr Cys Gln Gln Trp Ser Ser Asn Pro Phe Thr Phe Gly Ser Gly Thr
                                     250
Lys Leu Glu Ile Ash Arg Ala Asp Thr Ala Pro Thr Gly Ser Glu Gln
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Lys Leu Ile Ser Glu\Glu Asp Leu Asn Ser His His His His His
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